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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,704	07/31/2003	Douglas McLaggan	CISCP329/240201	3626
22434	7590	09/02/2008	EXAMINER	
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			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/632,704	<b>Applicant(s)</b> MCLAGGAN ET AL.	
	<b>Examiner</b> FARAH FAROUL	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-21,23-27,29-36 and 38-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-21,23-27,29-36 and 38-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 11, 2008 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. Any added limitations and/or claims to the original claim listing after First Action on the merits should be submitted with page(s)/paragraph(s) and/or line number(s) from the original specification to support the amendments.

### ***Drawings***

3. Figure 1A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

Art Unit: 2616

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

4. Claims 15, 24, 39, and 48 are objected to because of the following informalities:

The word “simultaneous” recited in line 17 of claim 15 should be replaced with "simultaneously".

The phrase “capable of” recited in lines 15-16 of claim 24 should be deleted to render the claims positive.

The word “simultaneous” recited in lines 15 and 17 of claim 24 should be replaced with "simultaneously".

The phrase “capable of” recited in lines 19-20 of claim 30 should be deleted to render the claims positive.

The word “simultaneous” recited in lines 20-21 of claim 30 should be replaced with "simultaneously".

The phrase “capable of” recited in lines 21 and 23 of claim 39 should be deleted to render the claims positive.

The word “simultaneous” recited in lines 22-23 of claim 39 should be replaced with "simultaneously".

The phrase “capable of” recited in lines 1 and 3 of claim 48 should be deleted to render the claims positive.

The word “simultaneous” recited in lines 2 and 4 of claim 48 should be replaced with “simultaneously”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7, 9, 15-21, 23, 24-27, 29-36, 38-48, and 49-50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1, 15, 24, 30 and 39 recites the limitation “the first gateway device **actively forwards** packets **simultaneously** with the second gateway device, and the second gateway device **actively forwards** packets **simultaneously** with the first gateway device”. A thorough search of the disclosure does not recite the word “simultaneously” or equivalent. The new matter is to be deleted from the claims. Furthermore, the disclosure does not explicitly recite “the first gateway device **actively forwards** packets” or “the second gateway device **actively forwards** packets”. This

Art Unit: 2616

limitation is to be deleted from the claim absent of any support from the specification. All claims dependent upon the above independent claims are subsequently rejected.

Claim 48 recites the limitation “the first gateway device **actively forwards** packets **simultaneously** with the second gateway device, and the second gateway device **actively forwards** packets **simultaneously** with the first gateway device”. A thorough search of the disclosure does not recite the word “simultaneously” or equivalent. The new matter is to be deleted from the claims. Furthermore, the disclosure does not explicitly recite “the first gateway device **actively forwards** packets” or “the second gateway device **actively forwards** packets”. This limitation is to be deleted from the claim absent of any support from the specification.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 10-14 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wils et al. (US 6,397,260 B1) in view of Wu et al. (US 7,065,043 B2).

For claim 10, Wils discloses assigning a first address set to the first gateway device, wherein the first address set comprises a plurality of forwarding addresses (Fig 3, R1 MAC-MA, MAC-MB), further wherein the first gateway device forwards packets sent by hosts and addressed to forwarding addresses in the first address set (column 7, lines 27-43);

Assigning a second address set to the second gateway device, wherein the second address set comprises a plurality of forwarding addresses (Fig 3, R2, MAC-MA, MAC-MB), further wherein the second gateway device forwards packets sent by hosts and addressed to forwarding addresses in the second address set (column 7, lines 27-43);

Adjusting the measured traffic flow by changing allocation of the forwarding addresses (column 7, lines 27-43 wherein the forwarding addresses may be reassigned

Art Unit: 2616

among the routers) and wherein the load-sharing redundancy group (load sharing set of Fig 3) provides failover services in the event that one of the gateway devices ceases operation (column 6, lines 2-7).

For claim 10, Wils discloses the entire claimed invention except for measuring the traffic flow for each forwarding address.

Wu, from the same or similar field of endeavor, teaches measuring the traffic flow for each forwarding address (see Fig 3 and 5, column 4, lines 45-57 and column 5, lines 45-55).

Thus, it would have been obvious to one skilled in the art to combine the traffic monitoring method of Wu with the communication network of Wils to reduce congestion in the load-sharing system.

For claim 11, Wu discloses instructing a host to use the assigned forwarding address having the lowest measured traffic on one of the set of gateway devices, the one of the set of gateway devices having the lowest measured traffic flow (see Fig 3 and 5, column 4, lines 45-57 and column 5, lines 45-55).

For claim 12, Wils discloses the forwarding addresses are virtual MAC (vMAC) addresses (see Fig 3 wherein MAC-MA and MAC-MB are vMAC addresses).

For claim 13, Wils discloses the first gateway device is a first router and the second gateway device is a second router (R1 and R2 of Fig 3).

For claim 14, Wils discloses reassigning one of the forwarding addresses from the first address set to the second address set (column 7, lines 27-43).



Art Unit: 2616

For claim 51, Wils does not explicitly disclose the first gateway device and the second gateway device each operate as an Active Virtual Forwarder with the Gateway Load Balancing Protocol. However, Wils does teach that first and second gateway devices forward packets in a load-sharing redundancy group (column 7, lines 27-43). Thus, it would be obvious to one skilled in the art to operate the devices according to any load balancing protocol for redundancy.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FARAH FAROUL whose telephone number is (571)270-1421. The examiner can normally be reached on Monday - Friday 8:00 AM - 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Farah Faroul/  
Examiner, Art Unit 2616

/FIRMIN BACKER/  
Supervisory Patent Examiner, Art Unit 2616